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मानक

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IS 3217 (1991): Engineers' drawing instruments, prickers  
[PGD 22: Educational Instruments and Equipment]



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भारतीय मानक

इंजीनियर आरेखण उपकरण प्रिकर्स – विशिष्ट

( पहला पुनरीक्षण )

*Indian Standard*

ENGINEERS' DRAWING INSTRUMENTS,  
PRICKERS – SPECIFICATION

( *First Revision* )

UDC 744:343:24

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BUREAU OF INDIAN STANDARDS  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

## FOREWORD

This Indian Standard ( First Revision ) was adopted by the Bureau of Indian Standards, after the draft finalized by the Drawings Sectional Committee had been approved by the Light Mechanical Engineering Division Council.

This Standard is one of a series of Indian Standards on engineering drawing instruments. Pricker is a drawing instrument accessory used by draughtsmen and engineers for transferring the dimensions by pricking by the needle while copying drawings.

The standard was originally published in 1965. This revision is based on further experience gained in the manufacture of drawing instruments and other developments in this field. The main modifications are :

- a) Length of the needle point has been specified, and
- b) Tolerances on important dimensions have been specified.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

# Indian Standard

## ENGINEERS' DRAWING INSTRUMENTS, PRICKERS — SPECIFICATION

( *First Revision* )

### 1 SCOPE

This standard covers the requirements of prickers for engineers' drawing instruments.

### 2 REFERENCES

The following Indian Standards are necessary adjuncts to this standard:

<i>IS No.</i>	<i>Title</i>
1068 : 1985	Electroplated coatings of nickel plus chromium and copper plus nickel plus chromium on iron and steel ( <i>second revision</i> )
2500 ( Part 1 ) : 1973	Sampling inspection tables : Part 1 Inspection by attributes and by count of defects ( <i>first revision</i> )
3216 : 1989	Engineers' drawing instruments, needles ( <i>first revision</i> )
3222 ( Part 1 ) : 1989	Instruments screws: Part 1 Fasteners for drawing instruments ( <i>first revision</i> )

### *IS No.*

### *Title*

4170 : 1967	Brass rods for general engineering purposes
6527 : 1972	Stainless steel wire rods
6528 : 1972	Stainless steel wire

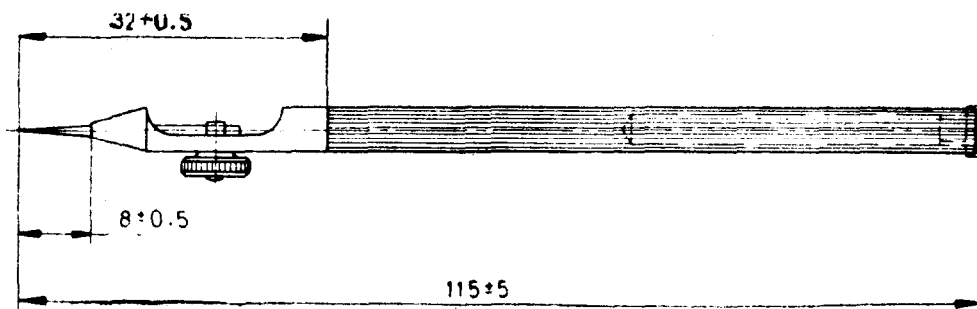
### 3 MATERIAL

**3.1** The material for the body of pricker shall be rolled, drawn or cast brass (B) conforming to IS 4170 : 1967, nickel silver (Ns) or stainless steel (Ss) conforming to IS 6527 : 1972 or IS 6528 : 1972.

**3.2** The handle of pricker may be made separately of suitable light mass material.

### 4 DIMENSIONS

**4.1** The dimensions for prickers shall be as shown in Fig. 1.



All dimensions in millimetres.

FIG. 1 DIMENSIONS FOR PRICKERS

**4.2** The figure is intended only to illustrate the dimensions and the design detail is left to the discretion of manufacturer so long as the dimensions affecting interchangeability are maintained.

## **5 DESIGNATION**

Prickers shall be designated by the commonly used name, the number of this standard and the material.

*Example :*

Pricker having made of nickel silver (Ns), complete with needle and screw shall be designated as :

Pricker 115 IS 3217 — Ns

## **6 GENERAL REQUIREMENTS**

**6.1** The method of fixing the needle in the pricker shall be at the discretion of manufacturer.

**6.1.1** The handle may have a provision to store spare needles.

## **7 WORKMANSHIP AND FINISH**

**7.1** The pricker body shall be finished dull or bright.

**7.1.1** When pricker bodies are made from brass, they shall be chromium plated to service Grade 2 according to IS 1068 : 1985.

**7.1.2** The pricker bodies are made from nickel silver or stainless steel, they shall be polished and buffed.

**7.2** The handles shall be fine fluted, smooth and well finished.

## **8 NEEDLES**

The needles shall conform to the requirements as specified in IS 3216 : 1989.

## **9 SCREWS**

The different screws used with needle points shall conform to the requirements as specified in IS 3222 ( Part 1 ) : 1989.

## **10 TEST**

The pricker shall be tested for conformity with the requirements as specified in 3.

## **11 SAMPLING**

### **11.1 Lot**

In a consignment all the half set of compasses of the same designation manufactured from same material under similar conditions of production shall be grouped together to constitute a lot.

**11.2** Unless otherwise agreed to between the supplier and the purchaser, the procedure given in IS 2500 ( Part 1 ) : 1973 shall be followed for sampling inspection. The inspection level, acceptable quality level (AQL) and type of sampling plan to be followed for various characteristics shall be as given in **11.2.1** and **11.2.2**.

**11.2.1** For dimensions, designation, general requirements, workmanship and finish, a single sampling plan with inspection level IV and AQL 2.5 percent as given in Tables 1 and 2 of IS 2500 ( Part 1 ) : 1973 shall be followed.

**11.2.2** For needles ( *see 8* ) and screws ( *see 9* ) a single sampling plan with inspection level II and AQL of 2.5 percent as given in Tables 1 and 2 of IS 2500 ( Part 1 ) : 1973 shall be followed.

## **12 MARKING**

**12.1** Pricker shall be marked with the manufacturer's name or trade-mark at a suitable place.

**12.2** Prickers may also be made with the Standard Mark.

## **13 PACKING**

**13.1** Prickers shall be first wrapped in paper and then packed in a suitable carton.

**13.2** Prickers may also be supplied as a part of an instruments set in which case the complete set may be supplied in a suitable box.

### **Standard Mark**

The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.



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## BUREAU OF INDIAN STANDARDS

### Headquarters :

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002  
Telephones : 331 01 31, 331 13 75

Telegrams : Manaksanstha  
( Common to all Offices )

### Regional Offices :

	Telephone
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 331 01 31 331 13 75
Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, Maniktola CALCUTTA 700054	37 86 62
Northern : SCO 445-446, Sector 35-C, CHANDIGARH 160036	53 38 43
Southern : C. I. T. Campus, IV Cross Road, MADRAS 600113	235 02 16
Western : Manakalaya, E9 MIDC, Marol, Andheri ( East ) BOMBAY 400093	6 32 92 95

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